

Roscommon Equipment Center Program

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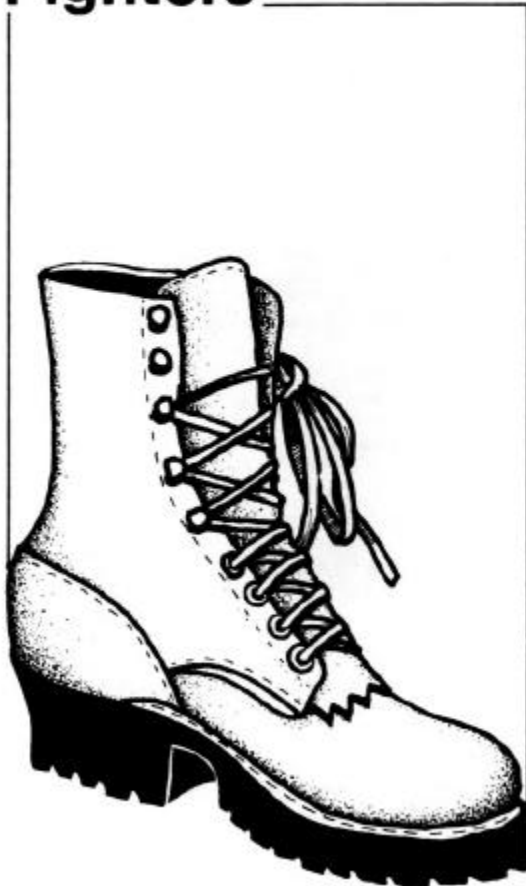
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Northeast Forest Fire Supervisors

In Cooperation With

Michigan's Forest Fire Experiment Station

Boots for Forest Fire Fighters



1998 Edition Note: NFPA 1977, "Wildland Fire Personal Protective Gear," includes standards for footwear.

I. Notes on Foot Care¹

A fire fighter's **feet** are among the most important yet neglected parts of the body. **Boots** should be of the highest quality available, fit well, and meet applicable specifications. To prevent leather deterioration, boots must air and dry daily. A pair of light shoes should be worn while in camp when possible: (1) To let boots air and dry, and (2) to rest and dry feet.

Wearing two pairs of socks, an inner pair of light cotton and an outer pair made of 100% wool, is recommended. They keep the feet dry by passing moisture from the cotton to the woolen socks and friction is absorbed between them instead of allowing the foot to rub on the boot. Because socks should be changed daily, a minimum of six pairs is suggested for inclusion in a fire pack.

Athlete's foot thrives on damp, dirty feet. To prevent or control it, wash or rinse the feet daily and apply a medicated cream or spray afterwards, being careful to completely cover the toes. Use foot powder or cornstarch on the feet and in the boots to absorb perspiration.

Foot blisters may be caused by poor fitting boots, inadequate or dirty socks, untrimmed toe nails, damp feet and by walking over rough terrain that the fire fighter's feet are not conditioned to. When blisters occur, clean the area with antiseptic, and cover them with a piece of gauze and a wide strip of adhesive tape, anchoring it well. Do not apply adhesive tape directly to a blister. Using a band-aid usually hinders rather than helps because sweat causes it to slip off, bunch up and rub, resulting in more blisters. When in camp, obtain further treatment at a medical station.

The above note on personal hygiene sets the stage for the following information on footwear for forest fire fighters. The Northeast Forest Fire Supervisors Equipment Development and Test Committee, in the form of a News Note, will provide information such as this from time-to-time. **Trade or brand names are only used as examples and do not imply endorsement of the products by the NFFS ED&T Committee, or by the USDA-Forest Service.**

¹ From: "Medical Self Help for the Fire Fighter,"
Santa Fe Medic Team, Santa Fe, NM 1976

For the purpose of these specifications, three primary styles of boots for fire suppression are recognized. Other similar boots, which meet the foregoing specifications, also may be acceptable.

The logger-style usually meets all specifications and comes in 8" or higher tops. Most hiking-style boots also meet all specifications except boot height, which often is only 6 inches – the absolute minimum necessary for safe foot wear on the fire line.

A number of manufacturers produce a field-style boot for general wear such as hiking, hunting, and field work. Many of these boots also minimally meet the specifications. One difference is the heel height, which is usually not as high as the logger-style. Heel height on field boots is very similar to the hiking-style. In steep terrain high boot heels are an advantage when walking downhill or traversing along a sidehill.

Both the logger-style and field-style boots provide a snug fit around the ankle and lower leg, thus offering better support. The padded hiking-style boots fit looser around the ankle and if not laced snugly, can pose a safety hazard by allowing hot material to get inside the boot when working in deep ash or accidentally stepping into a stump hole.

III. Prohibited Foot Wear

- low quarter boots/shoes; they do not provide ankle support or keep out sparks and dirt.
- "pull-on" type boots, such as cowboy boots and engineer boots; they do not provide adequate support to the ankle and the foot moves around in them, causing blisters.
- synthetic combat boots, made for wear in wet areas such as Vietnam, where leather will rot. These boots were made to drain and keep the foot relatively dry. The two biggest problems with them are (1) the nylon or Corfam® uppers will melt when exposed to flame or high temperatures, and (2) because they are fabric and have drain holes, it is impossible to keep the feet clean.
- flat leather soles, often found on cowboy boots, because traction is nil, particularly when wet.

IV. "Do's" and "Don'ts"

- Do**
 - check for a good fit while wearing the recommended two pair of socks.
 - discard nylon or cotton laces and use leather laces.
 - take good care of your boots, use a light coat of neat's-foot oil, or similar substances, **not** heavy coats of "sno-proof" or dubbing compound, so they can breathe.
 - try to obtain all-leather shanks instead of steel shanks; they are easier on the feet.
- Don't**
 - get boots with crepe or soft rubber soles, they will melt, burn, or wear out rapidly while fire fighting.
 - get boots with wedge or flat soles, although comfortable they do not provide good traction.

There are several manufacturers of suitable foot wear for forest fire fighting. **Some** of them are: Knapp, MA; Red Wing, MN; Lehigh, NY; White's, WA; Buffalo, OR; Sears Roebuck and Company and Montgomery Ward's catalog sales. Because they can be custom made-to-measure, White's of Spokane, WA and West Coast of Scappoose, OR, are very popular sources of boots.

This News Note is a cooperative effort between Northeast Forest Fire Supervisors and USDA Forest Service, Northeastern Area, Fire Protection. For additional copies, please contact:

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